

# Folic acid prescription in pregnancy

M E Cupples, T Bradley, G Murphy, G Lundy

Accepted 21 February 1995

---

## **SUMMARY**

*We resolved to prescribe folic acid supplements for all women who attended this practice during the first twelve weeks of pregnancy. Six months after this decision a prescription was recorded in only 13% of cases; this compared with 18% during the two months immediately following the decision. It was resolved to improve this performance and observations six months later revealed a prescription recorded in 63% of cases. Subsequently a new form for recording an antenatal consultation was devised and six months after its implementation, 100% recording of folate prescription for appropriate cases was observed. It was concluded that these simple audit exercises prompted changes in practice which helped to improve standards of patient care.*

## **INTRODUCTION**

In 1992 the Department of Health and Social Services sent a circular<sup>1</sup> to general practitioners advising that women should take folic acid supplements prior to conception and during the first twelve weeks of pregnancy with the aim of reducing the incidence of neural tube defects. Many of our patients had diets which were low in folate, therefore we decided that we should prescribe folate supplements for those who presented to us at less than twelve weeks' gestation. We recognised that those who did not present before the sixth week of gestation would not be protected from neural tube defects<sup>2</sup> in their current pregnancy but that the advice given with the supplements should have some benefit in relation to future pregnancies. Our aim was that all patients presenting before the twelfth week of their pregnancy should have a record in their notes of having been prescribed folic acid.

## **METHOD**

The study was based within one group general practice in an area of Belfast of low socio-economic class. Patients who were pregnant, less than twelve weeks gestation and consulted their general practitioner during May or June 1993 were identified from practice records. The medical notes of all these patients were examined manually and a data sheet was completed for each patient, recording details of their age, gestation at presentation, number of previous pregnancies and personal or family history of neural tube defects, in addition to information regarding folate prescription.

---

Stewartstown Road Health Centre, Stewartstown Road, Belfast BT17 0FB.

M E Cupples, MD, MRCP.

T Bradley, MD, MRCP.

G Murphy, MRCP, MRCP.

G Lundy, MB, MRCGP.

Correspondence to Dr Cupples.

In order to set a background against which to view these findings, we carried out the same exercise for patients who presented during January or February 1993, immediately following the decision regarding our practice policy for folate prescription. The same exercise was repeated again for patients presenting in January or February 1994, six months after the original observations were made and partners had resolved to improve their performance. Following these observations one partner designed a new form for recording an antenatal consultation. This was incorporated into routine practice and the audit exercise was again repeated for patients presenting in May or June 1994.

## RESULTS:

A total of 96 patients' records were examined. Their ages ranged from 16 to 42 years, with almost 70% being aged between 20 and 30 years. Approximately 20% of patients presenting for care were primigravidae. The majority of patients (60%) had one, two or three previous pregnancies, the highest number noted being nine. One patient had a previous baby with a neural tube defect and six others had a family history of neural tube defect recorded. Of all the patients presenting at less than twelve weeks' gestation, only 25% presented before their seventh week: most (52%) presented at seven or eight weeks and the remainder later than this.

TABLE

*Frequency of record of folate prescriptions for patients presenting at less than 12 weeks' gestation for each observation period.*

<i>Observation Period</i>	<i>Number of patients (%)</i>		<i>Total</i>
	<i>Folate Prescription Recorded</i>	<i>Folate Prescription Not recorded</i>	
Jan/Feb 1993	5 (18.5)	22 (81.5)	27
May/June 1993	3 (13)	20 (87)	23
Jan/Feb 1994	14 (63.6)	8 (36.4)	22
May/June 1994	24 (100)	0 (0)	24

The table shows the frequencies of a record of folic acid having been prescribed for patients during the four periods of observation, displayed in chronological order. The initial audit, done for patients presenting in May and June of 1993, showed a positive record in only 13% of cases. In comparison, a figure of 18.5% was noted immediately following the practice's decision to prescribe it; 63.6% after resolution to improve performance and 100% after implementation of a new form for an antenatal consultation.

## DISCUSSION

Although neural tube defect is a problem which is of relevance to the community within Northern Ireland and despite a DHSS recommendation in 1992 that women should take folic acid supplements prior to conception and during the

first twelve weeks of pregnancy as a preventive measure,<sup>1</sup> there is scant evidence of mass public education on this. The failure of health care professionals in providing this message was reflected in a recent report of women attending antenatal clinics in London: only 5% reported a preconceptual increase in folic acid consumption, 26% did increase their consumption when they realised they were pregnant but 67% were unaware of its value.<sup>3</sup>

The community within which the currently reported study took place tends not to eat a diet rich in folate: fresh vegetables, fruit and fortified breakfast cereals, which are good sources of folate, are not commonly consumed. Many pregnancies are not planned and, amongst those which are, we as general practitioners are not aware of many in which folate supplements have been taken prior to conception. Hence, we felt it was worthwhile to prescribe folate supplements for women presenting at less than 12 weeks gestation and to give them advice relating to future pregnancies. Previous studies have shown that patients generally do welcome advice from their general practitioners regarding lifestyle habits, including diet.<sup>4</sup>

The results of our study show, however, that it is important not merely to make a decision, but also to observe its outcome. The findings of the initial period of observation, only 13% of appropriate cases being recorded as having been prescribed folic acid, were a matter of concern to the general practitioners. All felt that they had been more diligent in their adherence to the practice decision than the observations indicated. Consequently there was an avowed commitment to more diligent recording of prescribing but repeat observations six months later, despite showing considerable improvement (63%), revealed a shortfall in the desired standards of care.

An advised method of improving quality of care is to solve problems and implement change.<sup>5</sup> The solution devised for the current problem was the design of a new form on which to record details of an antenatal consultation, with specific spaces allocated to documenting family and personal history of spina bifida, provision of folate supplements and dietary advice. The result of the reaudit of the practice's performance with regard to prescribing folic acid for women presenting at less than twelve weeks gestation was both encouraging and rewarding: records showed 100% achievement of the target.

## REFERENCES

1. Calman K C, Hine D J, Kendell R, McKenna J F et al. Folic Acid and Neural Tube Defects: Guidelines on Prevention. 17 Dec 1992. HSS (MD) 20/92. DHSS (NI).
2. Milunsky A, Jick H, Jick S S, Bruell C L et al. Multivitamin/folic acid supplementation in early pregnancy reduces the prevalence of neural tube defects. *JAMA* 1989; **262**: 2847-52.
3. Clark N A C, Fisk N M. Minimal compliance with the Department of Health recommendation for routine folate prophylaxis to prevent neural tube defects. *Br. J. Obstet Gynaecol* 1994; **101**: 709-10.
4. Wallace P G, Brennan P J, Haines A P. Are general practitioners doing enough to promote healthy lifestyle? Findings of the Medical Research Council's general practice research framework study on lifestyle and health. *Br Med J* 1987; **294**: 940-2.
5. Lawrence M, Griew K, Derry J, Anderson J, Humphreys J. Auditing audits: use and development of the Oxfordshire Medical Audit Advisory Group rating system. *Br Med J* 1994; **309**: 513-6.